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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,601	05/08/2006	Alexander Vasilyevich Kisletsov	J893-001 US	6982
21706 7590 03/19/2008 NOTARO AND MICHALOS 100 DUTCH HILL ROAD SUITE 110 ORANGEBURG, NY 10962-2100				
EXAMINER				
GREGORY, BERNARR E				
ART UNIT		PAPER NUMBER		
3662				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/578,601

**Applicant(s)**

KISLET SOV ET AL.

**Examiner**

Bernarr E. Gregory

**Art Unit**

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

1. The drawing is objected to because it does not clearly illustrate the claimed apparatus per 37 CFR 1.83(a). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The sole drawing in the application is not adequate to illustrate the invention so as to aid one of ordinary skill-in-the-art to interpret the invention. A new drawing is hereby **required** that clearly illustrates each and every claimed element of apparatus claims 4-9 per 37 CFR 1.83(a).

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2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Throughout claims 1-9, the uses of the word "fact" are indefinite and unclear in context. For example, what is meant on lines 2-3 of independent claim 1 by the phrase, "determining the fact of a missile launch"? Is this phrase meant to claim that the "missile launch" was directly detected as it happened? It is noted that once a missile is in the air that the detection of the missile in the air is indicative of the fact that a missile was at some earlier time launched.

On lines 3-4 of independent claim 1, it is unclear in context what is meant by the phrase, "determining missile coordinates in every time moment." Is this phrase meant to convey in context that the missile is constantly tracked from launch? Or, is this phrase merely meant to convey that while the missile is being tracked that the tracking is continuous?

On line 4 of independent claim 1, it is unclear in context what is meant by "pulse periodic laser radiation," particularly as to the meaning of the word "periodic" in this context. How would "pulse periodic laser radiation" differ from simply "pulsed laser radiation"?

On lines 8-9 of independent claim 1, the use of the words "close to" with respect to frequencies is indefinite and unclear in context. What range of frequencies around the "typical operation frequencies" would be termed "close"?

On lines 8-9 of independent claim 1, the phrase "typical operation frequencies of the infrared seeker heads" is indefinite and unclear in few ways. First, are these "operation frequencies" the PRF used by the seeker head? Second, are these "operation frequencies" the laser frequency? Third, for either of the above possible uses of the word "operation frequencies," there would only be one PRF or one laser frequency, so why is the plural "frequencies used? The PRF in claim 1 could not be "close to" a plurality of "frequencies."

On lines 3-4 of independent claim 4, it is unclear in context what is meant by "sensors of the fact ... of missile launch." How does a sensor sense a "fact" per se?

On lines 8-9 of independent claim 4, it is unclear what the "signals" are that are from the "sensors of the fact ... of missile launch." In dependent claim 5, "the information on the fact of the missile launch" lacks antecedent basis.

On lines 4-5 of dependent claim 6, it is unclear in context what is meant by the phrase "to define ... the fact the aircraft being [sic] attacked by a missile." What is the action described by defining a fact that something is being attacked?

On lines 5-6 of dependent claim 6, it is unclear in context what is meant by the phrase, "attacked by a missile with just the infrared seeker head." Is this phrase intended to indicate that the claimed system only acts against missiles having IR seeker heads?

On line 5 of dependent claim 6, it appears that there is a typographical error where the verb "is" is missing immediately before the word "being."

On line 7 of dependent claim 6, it is unclear in context what is meant by the phrase, "the fact of failure of guiding."

On lines 6-7 of dependent claim 6, it is unclear what is meant in context by the phrase, "to define ... the fact of failure of guiding." What action is meant by defining the fact of failure?

On lines 9-10 of dependent claim 6, "the information on the fact of failure" lacks antecedent basis.

On line 10 of dependent claim 6, "the fact of failure" is unclear in context.

On lines 1-2 of dependent claim 7, it is unclear in context what is meant by "sensors of the fact ... of missile launch." How is a "fact" per se sensed by a sensor.

On lines 2-3 of dependent claim 8, it is unclear in context what is meant by the recited "sensor" being a "narrow-directed sensor of the ultraviolet range." Does this narrowness refer to the angular field of view of the sensor or to the narrowness of the frequency range of the sensor

within the ultraviolet frequencies? Further, the term "narrow-directed" is indefinite and unclear in context in that the word "narrow" is a relative term without any point of reference as to what is narrow and what is not narrow.

On line 2 of dependent claim 9, the phrase "transceiver intended to transmit" is indefinite and unclear in context in that the phrase fails to claim clearly and definitely that the recited "transceiver" actually does "transmit," rather it merely states the "transceiver" has the potential to "transmit."

Dependent claims 2-3 are unclear at least in that they depend from unclear independent claim 1. Likewise, dependent claims 5-9 are unclear at least in that they depend from unclear independent claim 4.

4. Claims 1 and 4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
5. Claims 2-3 and 5-9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The examiner-cited prior art herewith is of general interest for showing the state of the related prior art. Durig ('533) is cited to show that PRF's are used with IR guidance heads for missiles.

Morand (Demande de Brevet D'invention 2,318,453 A1) is of particular interest in that it shows most of the claimed elements of independent claim 1 except that the laser in that reference is not producing "pulse periodic laser radiation" and in that there is no mention in the reference of PRF's. Otherwise, Morand (Demande de Brevet D'invention 2,318,453 A1) shows an on-board system for an aircraft that tracks a missile using a radar (page 2, lines 25-34) and that uses two lasers to lead the missile away from the aircraft (page 4, lines 2-7), where the missile has an IR seeker (page 1, lines 9-14).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571) 272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information



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for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bernarr E. Gregory/  
Primary Examiner, Art Unit 3662